USB – RS232 Cable Converter

APPLICATION NOTE
KB-0277-00 1.0 ENGLISH
Important User Information

Liability

Every care has been taken in the preparation of this document. Please inform HMS Industrial Networks SA of any inaccuracies or omissions. The data and illustrations found in this document are not binding. We, HMS Industrial Networks SA, reserve the right to modify our products in line with our policy of continuous product development. The information in this document is subject to change without notice and should not be considered as a commitment by HMS Industrial Networks SA. HMS Industrial Networks SA assumes no responsibility for any errors that may appear in this document.

There are many applications of this product. Those responsible for the use of this device must ensure that all the necessary steps have been taken to verify that the applications meet all performance and safety requirements including any applicable laws, regulations, codes, and standards.

HMS Industrial Networks SA will under no circumstances assume liability or responsibility for any problems that may arise as a result from the use of undocumented features, timing, or functional side effects found outside the documented scope of this product. The effects caused by any direct or indirect use of such aspects of the product are undefined, and may include e.g. compatibility issues and stability issues.

The examples and illustrations in this document are included solely for illustrative purposes. Because of the many variables and requirements associated with any particular implementation, HMS Industrial Networks SA cannot assume responsibility for actual use based on these examples and illustrations.

Intellectual Property Rights

HMS Industrial Networks SA has intellectual property rights relating to technology embodied in the product described in this document. These intellectual property rights may include patents and pending patent applications in the USA and other countries.
Table of Contents

1 Preface ................................................................................................................................................. 3
  1.1 About This Document .................................................................................................................. 3
  1.2 Document history .......................................................................................................................... 3
  1.3 Related Documents ....................................................................................................................... 3
  1.4 Trademark Information ............................................................................................................... 3

2 Introduction .......................................................................................................................................... 4

3 Configure the Computer ..................................................................................................................... 5

4 Configure the eWON .......................................................................................................................... 6
  4.1 Configure the eWON Cosy 131 .................................................................................................... 6
  4.2 Configure the eWON Flexy .......................................................................................................... 6

5 Remote Access to the Serial Device .................................................................................................... 7

6 Troubleshooting .................................................................................................................................. 8
  6.1 Issue on First Connection ............................................................................................................. 8
  6.2 Cable Is Not Recognized .............................................................................................................. 8
1 Preface

1.1 About This Document

This document explains how to use a USB – RS232 cable converter when it is combined with an eWON product.

The “eWON device” or the “eWON” mentioned in this document refers to the eWON Flexy and eWON Cosy 131.

For additional related documentation and file downloads, please visit [www.ewon.biz/support](http://www.ewon.biz/support).

1.2 Document history

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>2018-02-22</td>
<td>Original document.</td>
</tr>
</tbody>
</table>

1.3 Related Documents

<table>
<thead>
<tr>
<th>Document</th>
<th>Author</th>
<th>Document ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>eWON Flexy USB Extension Card FLB 3601</td>
<td>eWON CTS</td>
<td>IG-0024-00</td>
</tr>
</tbody>
</table>

1.4 Trademark Information

eWON® is a registered trademark of HMS Industrial Networks SA. All other trademarks mentioned in this document are the property of their respective holders.
2 Introduction

There are a number of automation devices solely equipped with a serial 9 pin port.

This document details step by step the routine to connect and access remotely the serial port devices by taking advantage of the USB port available on some of the eWON devices.

The link between the serial port device and the eWON devices is made possible thanks to a USB – RS232 adapter cable.
3 Configure the Computer

The first step is to check if the cable converter is working properly with the computer that has eCatcher installed which will be used to remotely access the serial device.

In case the cable converter was never connected to this computer, it must be first connected directly to the computer and tested to verify that it is working correctly with the software.

Eventually, a quick look at the “Device manager” of the computer can be done to make sure the USB driver of the cable is recognized and operational.

![Device Manager](image)

Fig. 1 Example of a USB Driver in the Device Manager of Windows.
4 Configure the eWON

Once the cable converter is fully compatible with the computer, it can be plugged in the eWON and the serial port device.

4.1 Configure the eWON Cosy 131

The eWON Cosy 131 is equipped with a USB port which is by default activated.

! The minimum firmware version of the eWON Cosy 131 required to take advantage of the USB connectivity is 10.0s0.

If a verification to confirm that the USB port is activated needs to be done, the status of the USB port is displayed on the homepage of the Cosy 131 web interface under the “Gateway” frame.

4.2 Configure the eWON Flexy

The USB connectivity on the eWON Flexy is made possible thanks to the USB extension card FLB 3601. For more information on how to install and use this extension card, refer to the eWON Flexy USB Extension Card FLB 3601 in the Related Documents, p. 3.

! The minimum firmware version of the eWON Flexy required to take advantage of the USB connectivity is 11.2s1.

If a verification to confirm that the USB port is activated needs to be done, the status of the USB port is displayed on the homepage of the Flexy web interface under the “Gateway” frame.

The status of the USB connectivity is not displayed on the homepage if the USB extension card FLB 3601 is not inserted in the eWON Flexy base unit.

An extension card must always be inserted when the base unit is powered off.
Remote Access to the Serial Device

To connect remotely to the serial port device:

1. Open eCatcher, highlight the desired eWON in the list and hit the “Connect” button.

2. If the USB – serial cable is correctly detected by the eWON, a “Connect” link will appear in the “Active connection” frame of eCatcher. Click on “Connect” to establish the link to the serial device through the USB port.

3. If the connection has been correctly established, the driver with a specific COM port is now displayed in the “Device Manager” of Windows.

4. Start using the appropriate software to connect to the serial device.
6 Troubleshooting

6.1 Issue on First Connection

When the cable converter has never been used with the computer that will be performing the remote access through eCatcher, it is highly probable that the USB driver of the cable is not installed or at least not successfully.

In this case, it is recommended to install the USB driver and test it before going any further.

![Example of a USB Driver Unsuccessfully Installed.](image)

6.2 Cable Is Not Recognized

A lot of USB – RS232 DB9 Serial Adapter Cables are available on the market and some of them might not be compatible.

Cables listed below have been tested and seem to provide similar performances:

- TRENDNet
- Ugreen
- RoHS
- sWeex
- plugable

*This list is a non-exhaustive list which means that other cables that are not listed here above can be compatible.*